A Yes.
Q All right. Would you please describe the room that you used to conduct the monitoring from?
A It was first floor conference room, glass windows all the way around it.
Q What kind of a building is it in?
A Brick, concrete.
Q Do you mean cinder block with a brick facing?
A I don't know. I don't know that much about the building.
Q Is it an office building?
A It's an office building.
Q I mean -- by office building, I mean it was more than just RAM's offices?
A Yes.
Q Is it a multi-story office building?
A Yes.
Q How many stories high?
A I don't know.
Q More than 10?
A I would guess seven.
Q Somewhere in the seven, eight category. And you were on the first floor?
A Yes.
Q Does RAM's office occupy the entire first floor,

RAM's offices occupy the entire first floor of that building?

A No.

Q What corner of the, of the building was the office in?

A I don't know which corner it would be.

Q Well, you testified a moment ago that the conference room had windows all the way around. I gather you didn't mean they were windows to the outside world then, did you?

A Yes, there was windows to the outside world.

Q Well, you said that RAM's offices don't occupy the entire first floor and you were monitoring in a conference room within RAM's office suite, so how could it be that the conference room had windows to the outside world all the way around?

A There was a window on one end toward the outside world and there was a window inside toward the main entrance of the building.

Q Were there any other windows?

A No.

Q So, we're talking about windows in two directions, one to the outside world and one to the inside of the office?

A Yes.

Q How big was the office -- the -- I'm sorry, the conference room that you did the monitoring in?

A I would guess 12 by 20.

Q And, as I recall your testimony, you don't know the type of building -- the, the construction material of the building that the office was made of, is that right?

A It's, it's concrete and brick, but I'm not sure of the exact construction.

Q Do you know whether it has steel reinforced concrete in there?

A No, I do not.

Q And where did -- where in the conference room did you place the Hark verifier? I need to know exactly what your setup was.

A The center of the room.

Q There was like a conference table in the center of the room? Is that right?

A Yes.

Q And you put the Hark verifiers on the table?

A Yes.

Q Now, how big -- well, how many pieces of equipment were you using for this monitoring process?

A Six.

Q Could you identify what each of those six pieces of equipment were?

A There was two Hark verifiers, two dumb terminals, keyboards with monitors, two printers -- I'm sorry, there were eight pieces of equipment -- and two scanners.

Q By scanners you mean a scanning receiver?
A Yes, sir.
Q What were the -- what model numbers -- make and model numbers were those pieces?
A They were Bearcat scanners. I'm not sure of the model numbers.
Q Did you purchase that equipment yourself, that is, the Bearcat scanners?
A No.
Q How did you acquire that equipment?
A It was company equipment.
Q But you don't know when the company obtained the equipment?
A No.
Q Did you ever examine the internal circuitry of the Bearcat scanners?
A No.
Q So, you wouldn't know how the receiver was functioning, if at all, would you?
A I would know by the audio that it was producing. It was good clear audio.
Q You would know that there is good clear audio, but hypothetically a receiver could, could show on the dial that it was listening to, say, 152.48 and it could have been listening to 152.51, couldn't it?

A It's possible.

Q What kind of antenna did the scanner have?

A Telescopic.

Q And, for the uninitiated, do you mean like, say -- well, I, I see some portable radios where you pull a metal antenna up and it's, it's -- you know, it, it sort of unfolds and gets longer and longer. Is that the type of antenna --

A Yes.

Q And when you, when you conducted the monitoring, I assume you fully extended the antennas on the receivers?

A Yes.

Q Now, isn't it true that in your test setup the receivers, the Bearcat scanners that you referred to, was the entire receiving unit for the input of the signal that you were monitoring. Isn't that right?

A Yes.

Q And, what, there was a wire connection then from the Bearcat into the Hark verifier --

A Yes.

Q -- unit? Okay. Now, let's see if we can clarify it also just exactly what this Hark verifier is, you know, how big it is and what it looks like. Could you describe that, please?

A It's, oh, about six or eight inches long, five or six inches wide, and about two inches tall.

Q So, it's a fairly compact little unit?
A Yes.
Q And how big is the Bearcat scanner?
A Eleven inches by six inches by three or four inches.
Q Okay. And, if I understood you correctly, that the receiver, the Bearcat scanner, was wire connected into the Hark verifier? Is that right?
A Yes.
Q And the terminal with the keyboard was wire connected into the Hark verifier in a separate port, is that right?
A Yes.
Q And then the, the -- I'm sorry. You said it was a dumb terminal and a smart printer or --
A Just a printer.
Q Just a printer?
A Yeah.
Q But that was also wire connected at another port, is that right?
A Yes.
Q Okay. When you conducted the monitoring, how close was the Bearcat scanner to its associated Hark verifier on the conference table?
A I'd say 8 to 12 inches.
Q And did -- was it exactly the same distance each

time you did the monitoring?

A Probably not.

Q So, you did not have a precise procedure that you went through to set up your test equipment each time you did the monitoring, did you?

A The -- there was -- I mean, it was the same precise procedure, but as far as the scanner next to the verifier, you know, it might have verified a few inches each time. There wasn't no precise location for each piece of equipment.

Q Do you know whether the emissions caused by the circuitry in the Hark verifier could interfere with receptions on a Bearcat scanner?

A No, I don't.

Q Do you know -- are you aware of the fact, I should say, that a Hark verifier cannot determine the source of a, of a signal that it is monitoring?

A Repeat the question?

Q Are you aware of the fact that a Hark verifier cannot determine the source of a signal that it is monitoring?

A No.

Q You're not aware of that?

A No.

Q Do you know that that's not true?

A No.

Q So, if someone who is familiar with the Hark

verifier testifies that it cannot determine the source of a signal that it's monitoring, you would have no basis for disagreement with that, would you?

A No.

Q Okay. Now, when you, when you set up the equipment to conduct this monitoring, did you do so at a particular time of the day?

A It was different each time.

Q Was this a deliberate choice or just --

A No.

Q -- depended on your schedule?

A Depended on my schedule.

Q So, whenever you were in the Charleston office and for whatever reason decided to conduct monitoring, that's when you decided to do it? Is --

A Yes.

Q -- that right? Now, I'm a little confused about in August -- I believe you testified that the first time that you conducted the, the monitoring with the Hark verifier was in August of '92. Is -- do I correctly understand that?

A Yes.

Q And this was done also in Charleston?

A Yes.

Q Were you -- I mean, were you the only one doing the monitoring?

A Yes.

Q Well, I thought you testified earlier that you didn't decode the ID that was transmitted on 152.48.

A The Hark verifier will not decode it.

Q And I thought I then heard you testify in response to a question from Ms. Laden that you did not decode the Morse Code identification on 152.48. Is that right?

A Her question, the way I understood it, was at the, at the time that I was there, at that particular time of making the test. At, at that particular time and instant that she was talking about, no, I did not.

Q Does that mean that you decoded the ID sometime later?

A I didn't -- I -- no. Not -- no.

Q Well, when was the ID decoded?

A Early on when it first started, the first time we set the verifier up.

Q In August of '92?

A Yes.

Q Now, did -- do I understand you then that after the first time you didn't decode the, the, the ID on the transmissions?

A No, I did not.

Q And you were the only one doing the monitoring?

A Yes.

Q And in August of '92 what you -- the, the Morse Code ID that you heard on 152.48 was, was what?

A Was Capitol Paging.

Q Which is what?

A I have no idea at this point.

Q Well, how did you then do the decoding? Did you write down --

A Yes.

Q You wrote down what you understood the, the Morse Code to be?

A Yes.

Q Is that right? And then, what, you asked Mr. Capehart whose is this?

A Yes.

Q And your information that, that he told you at the time was: that's Capitol, right?

A Yes.

Q So, you never independently verified whether that was Capitol or not, did you?

A No.

Q So, after the first time when you heard -- or observed, I should say, on the Hark verifier that the same pages were being transmitted on 152.51 and then 152.48, is that the sequence they first were, on 152.51 and then 152.48? Is that right?

A Yes.

Q You assumed, did you not, that it was a Capitol transmission on 152.48?

A Yes.

Q You're not an electronics engineer, are you?

A I'm a electronics technician.

Q Technician?

A Technician.

Q You don't, you don't pretend to be a expert on radio frequency interference problems, do you?

A No. I am good at what I do, though.

Q I'll bet you are. I have no quarrel with that. You did testify, though, that -- and, again, I, I believe I understood you to testify in response to questions from Ms. Laden that you know that Capitol's PCP system was capable of transmitting digital, digital pages. Did, did I understand that right?

A The question was is a PCP system capable of transmitting digital pages.

Q Well, all right. Let's, let's clarify that. And, and you, you testified that the P-- the PCP system, like an RCC system, can be either digital or analog or both, isn't that right?

A Yes.

Q And that's all you meant to, to say in response to

the question, isn't that right?

A Yes.

Q Do you know whether Capitol's station is capable of transmitting digital?

A I know that the same transmitter that was transmitting their station ID was transmitting digital pages.

Q Well, let's, let's talk about that a minute. You know that when you were observing the Hark verifier that there was a message that appeared on the screen that -- on the Hark verifier screen that purported to be code a -- of page. Isn't that right?

A Yes.

Q You all -- but that screen didn't decode any Morse Code, did it?

A No.

Q And that screen didn't have any indication on it as to the source of that page, did it?

A No. But --

Q And you, and you didn't have --

MR. JOYCE: I think you're, you're interrupting his answer, Mr. Hardman.

MR. HARDMAN: Well, the -- he answered the, the question.

MR. BLATT: I would like to say something else, if possible.

JUDGE CHACHKIN: Go ahead.

MR. BLATT: The Hark verifier, you calibrate it to the audio of the transmitter that you're listening to. It will not recognize any other transmitters because of the audio difference. So, once it was calibrated to that transmitter, it was listening and decoding only on that transmitter.

BY MR. HARDMAN:

Q So, it's your testimony that you can set the Hark verifier to listen only to a particular transmitter?

A The audio differences in the transmitters in the Charleston area, I could do that.

Q And you -- and you're, you're absolutely certain that's correct?

A Yes.

Q Now, would you explain just exactly what the audio differences are in the transmitters that enable you to make that setting?

A The audio levels between the two systems being different, you calibrate the verifier according to the audio levels --

Q When you say audio levels, that could mean -- means amount --

A The --

Q -- amplitude.

A The modulation difference, the, the amplitude of the

transmitter, what it's transmitting.

Q I'm sorry. I still don't understand.

A The, the differences in the systems, the transmission levels, modulation levels. When you calibrate the verifier you, you calibrate the level, the input level to it.

Q Well, perhaps we could take it a step at a time. What is it exactly that you're calibrating?

A The verifiers for the --

Q In what, in what units?

A It's, it's an automatic calibration that the verifier does. When, when it hears the transmitter, you put it into auto-calibrate and it calibrates to that particular transmitter.

Q Okay. But what I'm trying to get at is calibration implies some sort of measurement or parameter and I'm trying to understand what the calibration is in relation to.

A I don't know.

Q So, there's some button that you push that says auto calibrate?

A Yes.

Q Okay. Please continue.

A And it, it calibrates the verifier to that particular level and it decodes those pages. And if the level's too high or too low, it will not decode them.

Q Do you know what the tolerance is for that

calibration?

A No.

Q So, as far as you know, if a second signal is within whatever tolerance it is, that procedure would not reject the, the second signal, would it?

A I don't know.

Q Okay. Can you continue now to explain your setup?

A Could --

Q Your, your calibration, what you went through to set the parameters for the, for the, for the particular transmitter.

A When the transmitter's on the air, you do an auto calibrate on the audio level, and that's all there is to setting one up.

Q Okay. So, just so that I understand your testimony, you, you're saying that your understanding of the Hark verifier is that when you set it up and push the button for the auto calibrate that that will then in effect lock the receiver to listen for only the transmitter with the amplitude that falls within the, the tolerance of the first signal that you calibrated for? Isn't that right?

A The receiver still hears everything. The verifier only decodes the audio levels in which it's set up for.

Q Well, I, I appreciate the correction and I just want to make sure that this is clear on the record. It -- I'll

accept that the receiver hears everything, but let's go back now and talk about the, the auto calibration. As I understood your testimony, the, the, the circuitry in the Hark verifier locks on to -- when you push the button for the, for the auto calibrate, the, the Hark verifier locks onto the first signal that it hears after this button is pushed. Is that right?

A In the case between the two systems that were operating on 152.480, there was such a difference in the two systems and the levels that yes, that did happen.

Q Well -- that -- okay. So, that's, that's what I'm, that's what I'm trying to determine. Is this, is this procedure, this, this lockout, true every time you push the auto calibrate button?

A On 152.480 with those two systems, yes.

Q Well, at this point I haven't really focused on what frequency -- I'm trying to determine how the Hark verifier works when it's doing this type of monitoring. Is it your testimony that the, the Hark verifier operates differently on different frequencies?

A No.

Q Okay. So, on any given frequency that it is set for to do the monitoring, or -- I'm sorry, to do the, the decoding, it's the receiver that monitors, the Hark verifier that determines, isn't that right?

A Yes.

Q Okay. That the internal circuitry, when you push the auto calibrate button, locks onto the first signal that the receiver hears after that button is pushed, isn't that right?

A Yes. It calibrates to the next four or five pages or whatever is coming out. It's listening to the receiver, and whatever the receiver is hearing is what it's calibrating to.

Q So, that's the first signal that it -- that, that is on the air after the auto calibrate button is pushed, isn't that right?

A Yes.

Q And then it will reject for decoding purposes subsequent signals that are beyond a certain tolerance from that first signal, isn't that right?

A Whether that is the design of the piece of equipment or not, I don't know, but in the circumstances of the two systems it was listening to it did reject the other system when calibrated to one.

Q Well, I understand you believe that happened. I'm trying to determine what you know about how the Hark verifier works. And what I'm asking is whether you know if the Hark verifier then will reject for decoding purposes signals -- subsequent signals that fall outside the tolerance of the, of the equipment?

A No.
Q You don't know that?
A I, I know that it did in these circumstances. I do not know that it's designed to do that.
Q So, you don't know, based on the design of the equipment, what other signals it will reject, do you?
A No.
Q So, it's entirely possible, is it not, that what you thought you were hearing when you observed some of the monitoring was two signals or more? Isn't that right?
A If, if you were hearing more than one signal, you would be able to tell by the audio quality that you were listening to, the beating of the two signals.
Q Are you saying that the speaker on the Hark verifier is so sophisticated that it enables you to distinguish between different transmissions on the channel just by what you hear?
A I'm saying that a receiver that hears two transmitters at the same time is going to have a garbled sound.
Q No. I, I evidently --
A I don't understand.
Q -- did not convey my question correctly. Let's take a situation where one day you're monitoring and one transmitter, transmitter number one, is on the air for 152.480. The next day you're monitoring again and let's say, hypothetically, transmitter number two is transmitting on the

air, hypothetically, or, you know, on 152.480.

A Okay.

Q Now, my question is isn't it true, based on what you know about the Hark verifier, that if the second transmitter number two is within a certain tolerance of transmitter number one, the Hark verifier would not reject the second signal as being a different signal?

A Yes. It, it would not.

Q And I believe you also testified, did you not, that you don't know what the tolerance is?

A No.

JUDGE CHACHKIN: Do you have much more, Mr. Hardman, with this witness?

MR. HARDMAN: I may.

JUDGE CHACHKIN: Well, we'll take a recess till 9:30 tomorrow morning.

(Whereupon, at 4:05 p.m., Wednesday, February 2, 1994, the hearing was recessed until the 9:30 a.m., Thursday, February 3, 1994.)

CERTIFICATE OF REPORTER, TRANSCRIBER, AND PROOFREADER

IN THE MATTER OF CHARLESTON, WEST VIRGINIA
Name

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Docket No.

WASHINGTON, D.C.
Place

FEBRUARY 2, 1994
Date

We, the undersigned, do hereby certify that the foregoing pages, numbers 209 **through** 401 **, inclusive, are the true, accurate and complete transcript prepared from the reporting by** ALICE WEHNER **in attendance at the above identified proceeding, in accordance with applicable provisions of the current Federal Communications Commission's professional verbatim reporting and transcription Statement of Work and have verified the accuracy of the transcript by (1) comparing the typewritten transcript against the reporting or recording accomplished at the proceeding and (2) comparing the final proofed typewritten transcript against the reporting or recording accomplished at the proceeding.**

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